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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/257,506	02/25/1999	TATSUYA MATSUMURA	50073-019	2315
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20277 7590 07/16/2002

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EXAMINER

NELSON, ALECIA DIANE

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

HC

Office Action Summary

Application No.
09/257,506

Applicant(s)
Matsumura et al.

Examiner
Alecia Nelson

Art Unit
2675



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 13, 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. ***Claims 1-18*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimamoto (U.S. Patent No. 6,147,672) in view of Rindal et al. (U.S. Patent No. 5,659,339).

With reference to the claims, there is taught a driving method of a liquid crystal display characterized in that when red, green, and blue color display data composed of plural bits (see column 5, lines 46-49) are transferred from a display timing circuit to a TFT drive circuit for

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driving a TFT liquid crystal panel to display (see column 6, lines 32-37). There is also taught a first control circuit for outputting the data of the group represented by certain data to the signal line when the coincidence of polarity has been detected by the detector circuit; and a second control circuit for outputting the data of the group restored from the certain data of the signal line to the drive circuit when the coincidence of polarity of bit has been detected by the detector circuit (see column 6, line 56-column 7, line 26).

Shimamoto fails to specifically teach that the transfer is performed with a time lag little by little for each bit unit formed of plural bits optionally selected from each of the color display data. However it is taught that it is necessary to slow down the transfer of display data (see column 1, lines 35-49).

Rindal et al. teaches a method and apparatus wherein electromagnetic interference (EMI) generated by a flat panel video display system is reduced by periodically phase/modulating the panel clock (see abstract). It is taught that the video data on bus (90) is updated when clocked by the panel clock (70), with all timing and clocking information coming from timing generator (80). It is also taught that a wide variation in the change in period of the panel clock signal, and thus the DATA signal, is permitted. The data may be delayed almost arbitrarily providing the panel clock is identically delayed (see column 6, lines 50-55). Even though, it is not stated that the DATA signals are delayed in a manner in which one specifically are time delayed to lag one another, it is stated that it may be delayed almost arbitrarily as long as the panel clock is also delayed and does not reduce the display performance.

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Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to reduce the electromagnetic interference by delaying the rate of the DATA signal, whether it is a time delayed to lag one another or delayed spontaneously, as taught by Rindal et al., in a apparatus similar to that which is taught by Shimamoto to thereby reduce EMI without significantly impacting on display performance.

Response to Arguments

3. Applicant's arguments with respect to *claims 1-18* have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Any response to this action should be mailed to: Commissioner of Patents and Trademarks Washington, D.C. 2023; or faxed to: (703) 872-9314, (for Technology Center 2600 only). Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alecia D. Nelson whose telephone number is (703)305-0143.

If attempts to reach the above examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras, can be reached at (703)305-9720.

and/AND
July 11, 2002


DENNIS-DOON CHOW
PRIMARY EXAMINER